

California Regional Water Quality Control Board  
North Coast Region

MONITORING AND REPORTING PROGRAM NO. R1-2005-0051

FOR

Shell Oil Company  
for  
Shell Service Station  
255 Dutton Avenue

and

Jim Thompson  
for  
Shell DZ Products Facility  
257 Dutton Avenue

Sonoma County

**Monitoring**

1. Groundwater samples from each monitoring well shall be analyzed quarterly for the following constituents: Total Petroleum Hydrocarbons (TPH) as gasoline; TPH as diesel; and volatile organic compounds (VOCs), including: benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl tertiary butyl ether (MTBE); and tertiary butyl alcohol (TBA).
2. Prior to sampling, the presence of floating product shall be evaluated in each monitoring well. If detected, the thickness of floating product shall be measured to the nearest 0.01-foot increment.
3. Prior to sampling, the depth to groundwater in each monitoring well shall be determined to the nearest 0.01-foot increment. The results of each set of quarterly groundwater elevation measurements shall be reported in a table indicating surveyed elevations of each well reference point, depth interval of the well screen, depth to groundwater from each reference point, and the actual groundwater elevation, referenced to mean sea level.
4. Representative influent and effluent samples from the groundwater and soil vapor extraction and treatment systems shall be analyzed at least once every two weeks for the first three months of operation, and monthly thereafter. The samples shall be analyzed for the following constituents: TPH as gasoline; TPH as diesel; BTEX, MTBE, TBA, and VOCs. MTBE and VOCs shall be analyzed by EPA Method 8260 (modified) and all quantifiable peaks identified in the test chromatogram shall be reported.
5. All laboratory analyses shall be performed by a laboratory certified by California Department of Health Services for those analyses.

6. Analytical methods for sample analyses shall achieve practical quantification reporting limits that are adequate for evaluating regulatory action levels for each constituent. A table of water quality objectives and common laboratory reporting limits for petroleum constituents of concern is incorporated in this Order as Appendix A.

### **Reporting**

1. Quarterly groundwater monitoring reports shall be submitted containing the following information:
  - a. Current and previous analytical results presented in tables that include:
    1. Sampling station identification
    2. Date of sample collection
    3. Constituents tested and analytical results;
    4. Quantification limits employed for non-detect analytical results;
    5. Depth to groundwater measured in feet below ground surface; and,
    6. Groundwater elevations referenced to mean sea level.
  - b. An accurately scaled site plan showing the locations of monitoring wells, current and past underground storage tanks, and other significant site features;
  - c. An accurately scaled groundwater elevation map for each sampling event showing significant site features, groundwater elevation contour lines, groundwater flow direction and gradient;
  - d. A performance summary for the multi-phase extraction system, including an operation and maintenance summary for the system and data for the chemical mass removed; from the subsurface in each media phase. The report shall include calculations and documentation for the reported chemical removal rates.
  - e. Supporting documents for the reported data shall be included in monitoring reports, including: well purging and sampling field logs; chain of custody documents showing the time and date of collection and person collecting; signed laboratory sheets including quality control data and explanations of analytical anomalies, if any; waste disposal manifests. Supporting documents may be included as appendices to the report.
  - f. Monitoring reports for the first and third quarter monitoring events shall include contaminant iso-concentration maps showing the lateral distribution of TPH as gasoline, benzene, and MTBE for those events.
2. Quarterly monitoring reports shall be submitted in accordance with the following schedule:

<u>Reporting Period</u>	<u>Due Date</u>
January, February, March	April 30
April, May, June	July 31
July, August, September	October 31
October, November, December	January 31

3. Monitoring reports shall be submitted to:

North Coast Regional Water Quality Control Board  
5550 Skylane Boulevard, Suite A  
Santa Rosa CA 95403

4. In addition to the customary monitoring report (paper) format submitted to this office, Monitoring data shall also be submitted electronically to the State Water Resources Control Board's Geographic Environmental Information Management System database (GeoTracker) as required by Title 23, Division 3, Chapter 16, Article 12 of the California Code of Regulations (i.e., AB2886 electronic reporting requirements).

Electronic Data Format (EDF) submittals are required for all UST sites. Additional information about the EDF process may be found at the State Water Resources Control Board Web site at <http://geotracker.swrcb.ca.gov> by clicking on the information link to AB 2886.

Ordered by \_\_\_\_\_

Catherine E. Kuhlman  
Executive Officer

August 24, 2005

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